

The diagram illustrates a video transmission system. On the left, a video camera (2) is connected to a first computer system (24). This system consists of a Receiving Stage (4), a Compression Stage (6), and a Transmission Stage (8). The Transmission Stage is connected to a second computer system (26) via a transmission line. The second system consists of a Receiving Stage (10), a Decompression Stage (12), and a Display Stage (14). Both systems have monitors (28 and 30) and speakers (32 and 34).

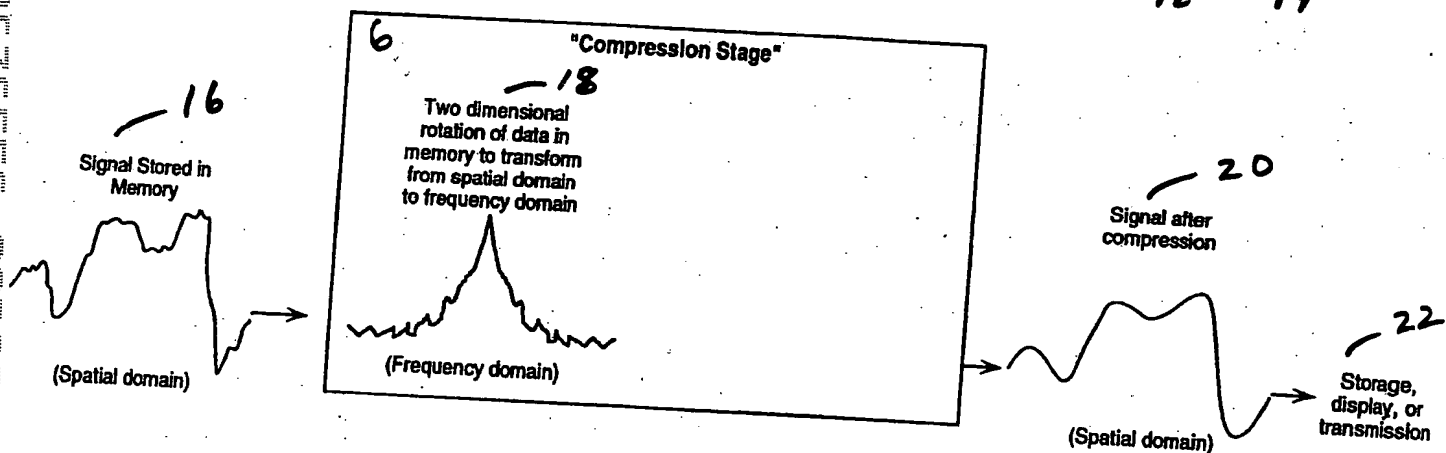


FIG. 1

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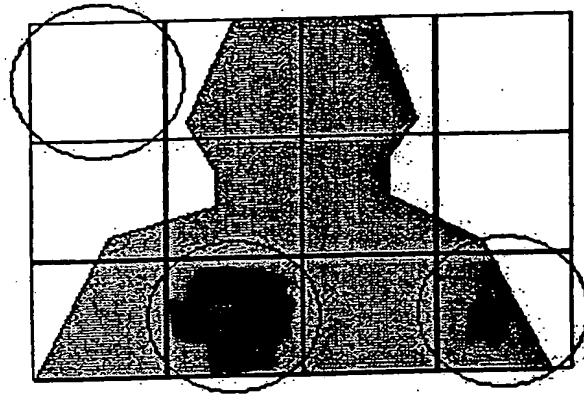


FIG 2

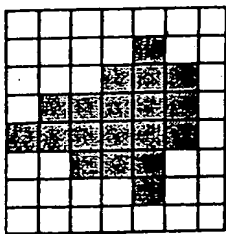


FIG 3a

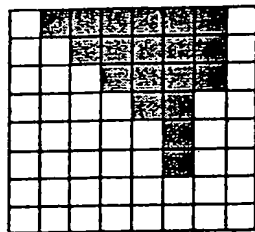


FIG 3b

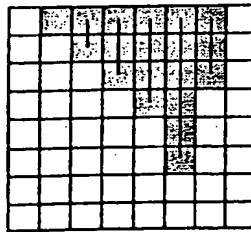


FIG 3c

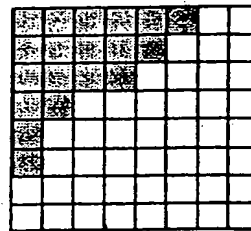


FIG 3d

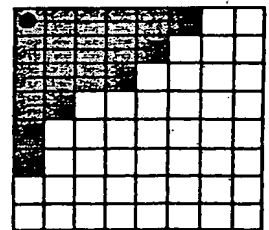


FIG 3e

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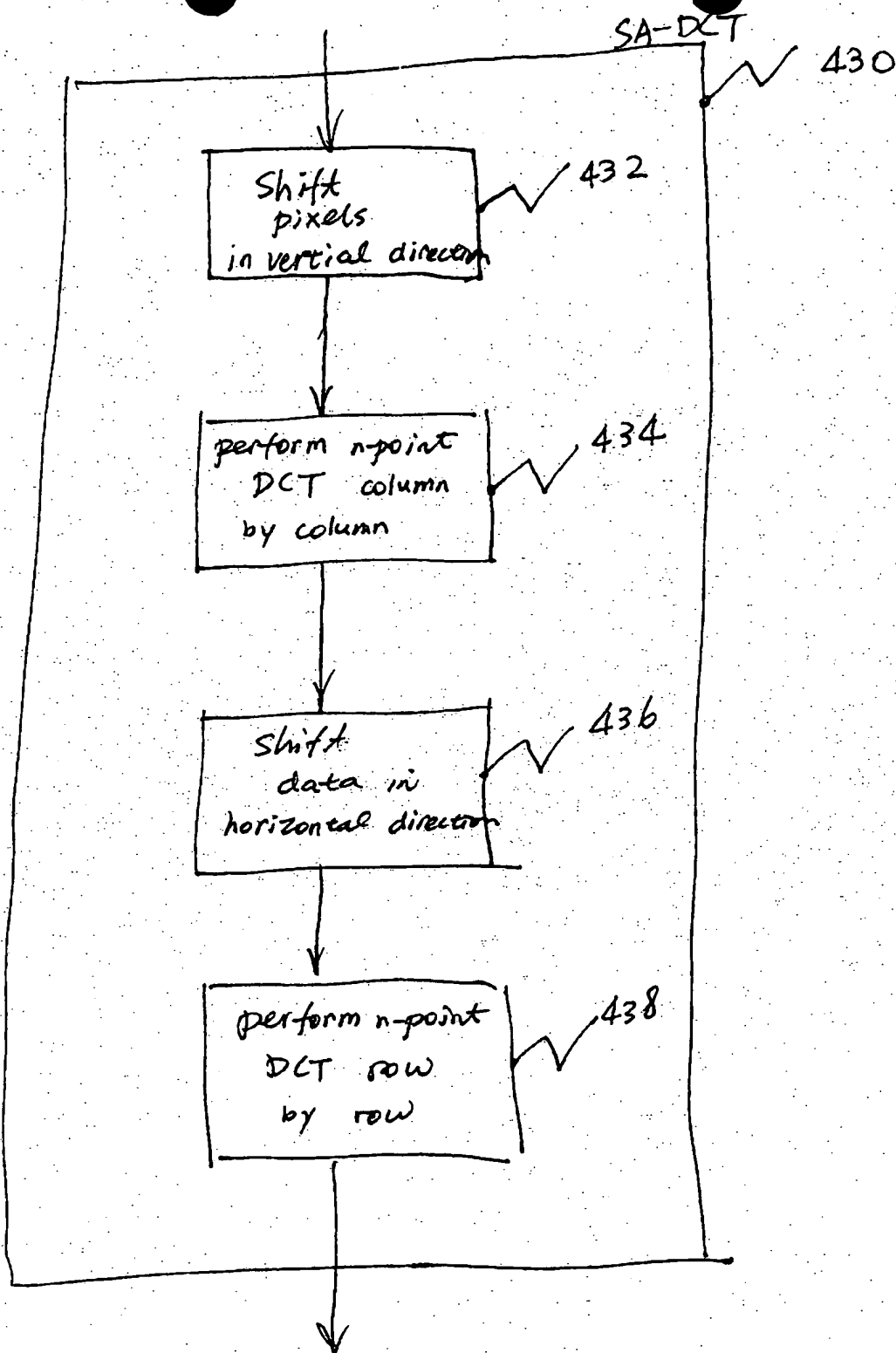


Figure 6

SA-IDCT

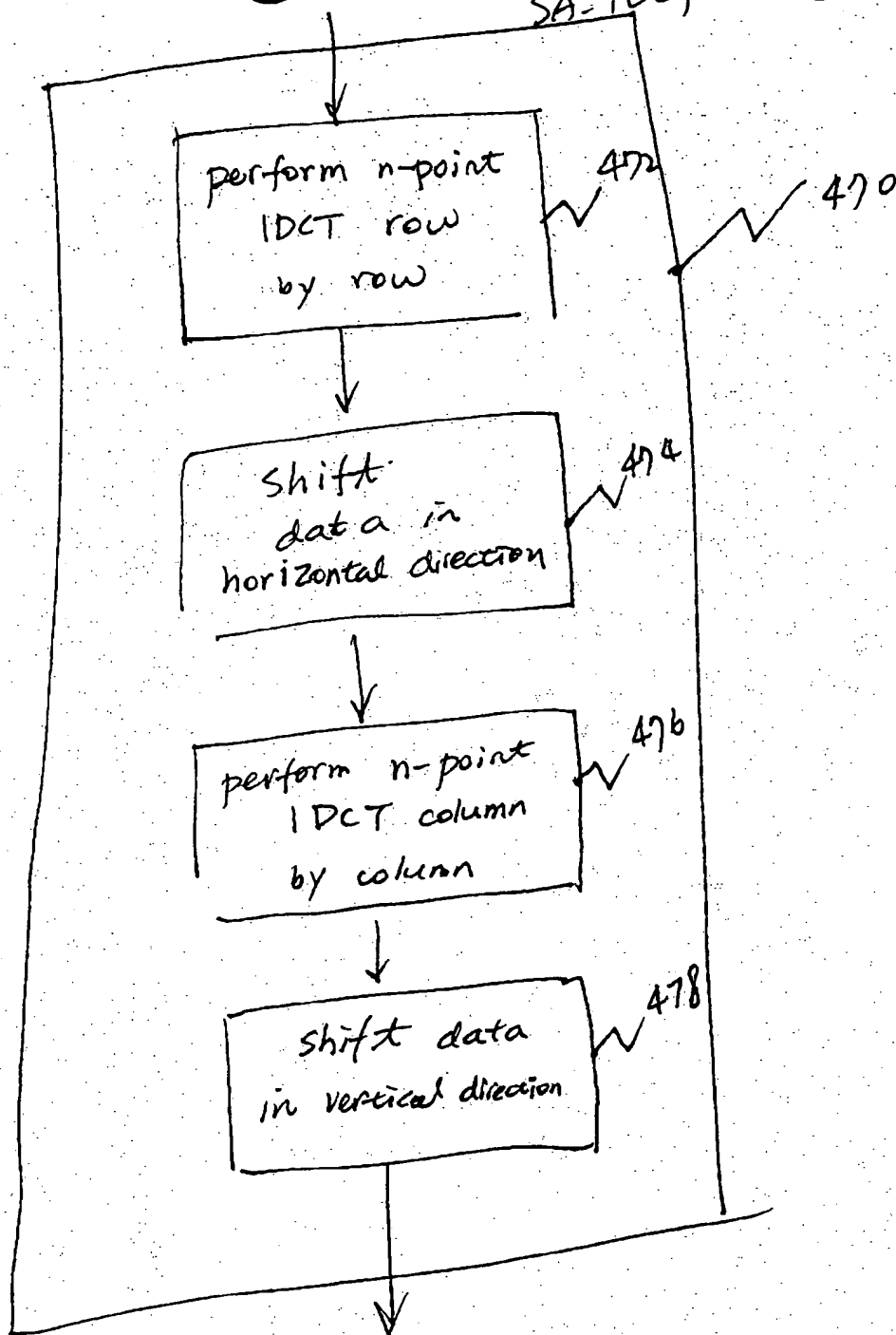


Figure 7

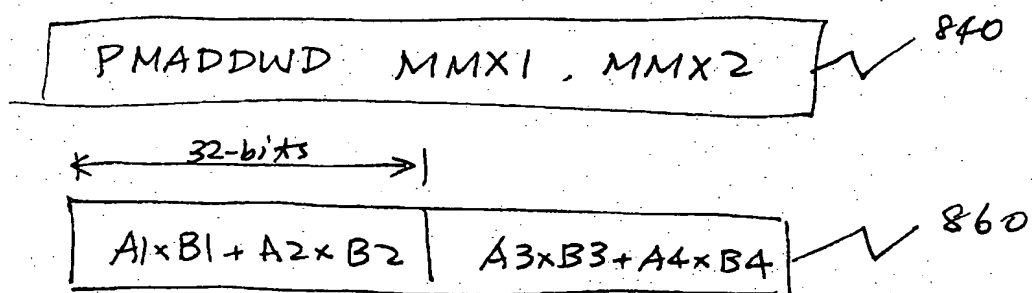
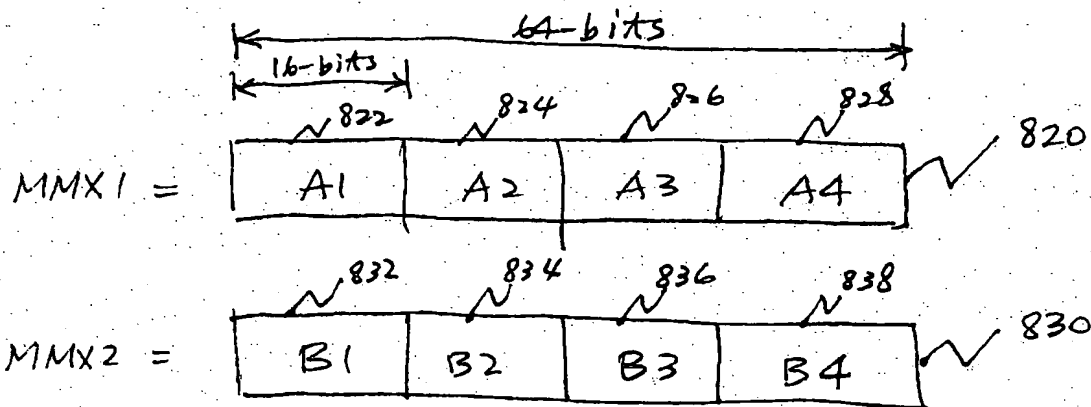


Figure 8

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$$\begin{matrix} \swarrow q10 & & \swarrow q20 & & \swarrow q30 \\ \begin{bmatrix} X_1 \\ Y_2 \\ \vdots \\ Y_n \end{bmatrix} & = & \begin{bmatrix} A_{11} & A_{12} & \dots & A_{1n} \\ \vdots & \vdots & & \vdots \\ A_{n1} & \dots & \dots & A_{nn} \end{bmatrix} & \begin{bmatrix} X_1 \\ X_2 \\ \vdots \\ X_n \end{bmatrix} \end{matrix}$$

Figure 9a. One embodiment of ^{n-point} DCT/IDCT

$$\begin{bmatrix} Y_1 \\ Y_2 \\ \vdots \\ Y_n \end{bmatrix} = \begin{bmatrix} S_{11} & \dots & S_{1n} \\ \vdots & & \vdots \\ S_{n1} & \dots & S_{nn} \end{bmatrix} \begin{bmatrix} M_{11} & M_{12} & \dots & M_{1n} \\ \vdots & \vdots & & \vdots \\ M_{n1} & \dots & \dots & M_{nn} \end{bmatrix} \begin{bmatrix} B_{11} & \dots & B_{1n} \\ \vdots & & \vdots \\ B_{n1} & \dots & B_{nn} \end{bmatrix} \begin{bmatrix} X_1 \\ X_2 \\ \vdots \\ X_n \end{bmatrix}$$

q22

q24
FIG 9b.

q25